

## **REMARKS**

### **Status of the Application**

In the Office Action, claims 10-24 were rejected. In the present Amendment, claims 10 and 13 have been amended so that claims 10-24 are pending. Claims 10 and 13 have been amended to more clearly define the invention. No new matter has been added.

### **Rejections Under 35 U.S.C § 102**

Claims 10-22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,261,645 to Betz et al. The Examiner claims that the clear topcoat disclosed by Betz is "a lacquer coating or sealing coat *inherently* since it is produced by a method identical or substantially identical process to that of claimed invention." To support her position, the Examiner relies on MPEP 2111.02 and 2112.01, which she claims states that "where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, *claimed properties or functions are presumed to be inherent*." The Examiner also cited to In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) as standing for the proposition that "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicants has the burden of showing that they are not."

Specifically, the Examiner asserts that Betz discloses "a process for producing scratch resistant (See column 2, lines 61-67; column 3, lines 1-8) multicoat finishes in which a pigmented basecoat applied to the substrate surface, a clear topcoat radiation curable coating composition comprising binders based on prepolymers or oligomers such as urethane acrylates (methacrylates)(See column 5, lines 47-54, 62, 64) is applied atop the resultant basecoat film, and then the topcoat film is cured (See column 9, lines 33-36, 57-67) by means of radiation , preferably by means of UV radiation (See column 10, lines 6-10)." The Examiner also asserts that the particularly preferred binders of Betz are disclosed at column 6, lines 2-5 as being aliphatic urethane acrylates (methacrylates), and that Betz discloses that such binders can be "made by reacting polyisocyanurate of hexamethylene (hexane) diisocyanate, i.e. polyisocyanates based on acyclic aliphatic diisocyanate having 8 C atoms (See column 11, lines 13-15) with hydroxyalkyl methacrylate and diols/polyols (See column 7, lines 14-54)." The Examiner also alleges that the "binders can be

used in the coating composition in an amount 5-90 wt.% (See column 8, lines 14-21)", and that the "coating composition may if desired include one or more reactive diluents, which are employed preferably in an amount of from 0 to 70% by weight, with particular preference from 15 to 65% by weight, based in each case on the overall weight of the coating composition in the case of clear coats (See column 8, lines 22-34). The Examiner also alleges that Betz discloses that his "prepolymers or oligomers normally have a number-average molecular weight of from 500 to 50,000, preferably from 1000 to 5000 and preferably have at least 2 and, with particular preference, from 500 to 900 (See column 6, lines 12-23). Finally the Examiner asserts that Betz discloses that his "coating composition is particularly suitable as a topcoat for producing a multicoat finish in the sector of the automotive OEM finishing and/or automotive refinishing (i.e. over outer finish) of car bodies and parts thereof and also truck bodies, and the like (See column 10, lines 1-5).

Applicants, however, respectfully assert that Betz does not anticipate their claimed invention because it fails to either expressly, or inherently disclose all of the claimed elements or steps of their claimed invention. It is well established under 35 U.S.C. §102 that a prior art reference anticipates the claimed invention only where all of the claimed elements or steps of the claimed invention are disclosed, either expressly or inherently, in the reference. Scripps Clinic & Research Foundation v. Genetech, Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991); In re Marshall, 577 F.2d 301, 198 USPQ 344 (CCPA 1978). See also, Section 2131 of the Eighth Edition of the MPEP at page 2100-70 ("A claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently in described, in a single prior art reference.").

In the first instance, Applicants respectfully assert that Betz fails to expressly disclose all of the claimed limitations of Applicants' claimed invention. More specifically, Applicants call the Examiner's attention to Section 2131.02 of the Eighth Edition of the MPEP at page 2100-72, which expressly indicates that "A genus does not always anticipate a claim to a species within the genus." In fact, Section 2131.02 of the MPEP indicates that a genus only anticipates a specifically claimed compound if "one of ordinary skill in the art is able to 'at once envisage' the specific compound within the generic chemical formula", but in order for a specific compound to be considered "at once envisaged", the person of ordinary skill in the art "must be able to draw the structural formula or write the name of each of the compounds included

in the generic formula". In order to further illustrate the application of this mandate, Section 2131.02 of the Eight Edition of the MPEP at page 2100-73 cites the decision rendered in In re Meyer, 599 F.2d 1026, 202 USPQ 175 (CCPA 1979), wherein the court held that a "reference disclosing 'alkaline chlorine or bromine solution' embraces a large number of species and cannot be said to anticipate claims to 'alkali metal hypochlorite.'"

The situation at hand is not unlike the situation addressed in In re Meyer, 599 F.2d 1026, 202 USPQ 175 (CCPA 1979). Indeed, Betz is simply broadly disclosing at column 7, lines 14-62, that the urethane (meth)acrylates disclosed at column 5, lines 47-67, as well as, the preferred aliphatic urethane acrylates disclosed at column 6, lines 3-4, which he indicates may be used in his process for producing scratch resistant coatings, are produced via the broadly disclosed process involving reacting a di-or polyisocyanate with a chain extender from the group of the diols/polyols and/or diamines/ polyamines and/or dithiols/polythiols and/or alkanolamines and subsequently reacting the remaining free isocyanate groups with at least one hydroxyalkyl(meth)acrylate or hydroxyalkyl ester of other ethylenically unsaturated carboxylic acid." The disclosure of Betz, however, never mentions Applicants very specifically defined process for preparing the specific aliphatic urethane (meth)acrylate utilized by Applicants in their claimed process for preparing their UV curable clear/sealing coating having outstanding flexibility, as well as, good scratch resistance.

More specifically, Applicants claim a process for coating a clear/sealing coating over either a base lacquer/clear lacquer two-coat lacquering system, or a multi-coat lacquer, wherein the clear/sealing coating comprises a resin solid consisting of aliphatic urethane(meth)acrylates having an average (meth)acryloyl functionality of 3 to 4.5 and a calculated molecular mass of at least 826, wherein the desired aliphatic urethane(meth)acrylates having these claimed characteristics are formed by reacting an acyclic aliphatic diisocyanate having 8 C atoms with at least one low-molecular aliphatic compound. Nowhere does Betz indicate that his UV curable allegedly scratch resistant clear coat can be formed by using this very specific aliphatic urethane (meth)acrylate. In fact, the broad disclosure of Betz embraces a significantly large number of the variously available aliphatic urethane (meth)acrylate compounds.

Moreover, the Examiner's attempt to narrow Betz's broadly disclosed process for forming urthane(meth)acrylates by pointing to the blocked isocyanate compound disclosed at column 11, lines 13-15 is misplaced. Indeed, the isocyanurate trimer of hexamethylene diisocyanate that is disclosed by Betz, although it is an acyclic 8 C diisocyanate, is being blocked with diethyl malonate. Such a blocked diisocyanate would not work in accordance with Applicant's claimed invention because Applicants' claimed process requires the coating to be cured via high-energy radiation, and a coating composition containing blocked isocyanate must be thermally cured in order to unblock the isocyanate and enable the coating to crosslink. In sum, incorporating the blocked acyclic 8 C isocyanate taught by Betz into the clear/sealing coating used in Applicants' claimed coating process would result in an incurable coating, or in other words, an inoperable invention.

As a result, a person of ordinary skill in the art would not "at once envisage" the specific aliphatic urethane (meth)acrylate compound used in accordance with Applicants' invention to obtain a clear/sealing coating that has good scratch resistance with improved flexibility and decreased tendency to partially dissolve the base lacquer coats. Accordingly, Applicants respectfully assert that Betz has failed to expressly disclose all of the claimed limitations of Applicants' claimed invention, and therefore respectfully request that the Examiner withdraw this rejection.

In the second instance, Applicants respectfully assert that Betz fails to inherently disclose all of the claimed limitations of Applicants' claimed invention. More specifically, Applicants call the Examiner's attention to Section 2112 of the Eighth Edition of the MPEP at page 2100-52, which clearly indicates that "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic, *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323.326 (CCPA 1981)." Indeed, this section of the MPEP makes it clear that "'In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied art.' Ex Parte Levy 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) ...."

Indeed, although the specifically claimed process being utilized in forming the specifically claimed aliphatic urethane (meth)acrylates being incorporated into the clear/sealing coat being used in accordance with Applicants' claimed coating process may be used in formulating the urethane (meth)acrylates broadly disclosed by Betz, the Applicants' claimed process for forming their specifically claimed aliphatic urethane(meth)acrylates does not necessarily flow from Betz's broad disclosure. As a result, Applicants respectfully assert that Betz does not inherently disclose all of the claimed elements of their claimed invention because the Examiner has failed to provide an adequate basis in fact and/or technical reasoning to reasonably support the conclusion that their specifically claimed process for forming their specifically claimed aliphatic urethane(meth)acrylate necessarily flows from the teachings of Betz.

Such a conclusion is not altered by the Examiner's reference to the blocked isocyanate compound disclosed at column 11, lines 13-15. Indeed, as discussed hereinabove, while the isocyanurate trimer of hexamethylene diisocyanate disclosed by Betz at column 11, lines 13-15 is an acyclic 8 C diisocyanate, Betz teaches that this hexane diisocyanate be blocked with diethyl malonate prior to being incorporated into a coating composition. Incorporating such a blocked diisocyanate into the coating composition of Applicants' claimed coating process, however, would serve to destroy the ability of the coating to crosslink in accordance with the claimed process. Specifically, Applicants' claimed coating process requires the coating to be cured via high-energy radiation, and a coating composition containing blocked isocyanate must be thermally cured in order to unblock the isocyanate and enable the coating to crosslink. In sum, incorporating the blocked acyclic 8 C isocyanate taught by Betz into the clear/sealing coating used in Applicants' claimed coating process would result in an incurable coating, or in other words, an inoperable invention.

In sum, Applicants respectfully assert that Betz does not anticipate their claimed invention because it fails to either expressly, or inherently disclose all of the claimed elements or steps of their claimed invention. Accordingly, Applicants respectfully request that the Examiner withdraw these rejections and allow claims 10-24.

**Rejection under 35 U.S.C. § 103**

Claims 23-24 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,261,645 to Betz et al. The Examiner correctly notes that Betz "fail[s] to teach that the clear topcoat is applied to areas of outer finish susceptible to scratching (Claim 23) such as near locks, door handles, etc. (Claim 24)", but asserts that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied a coating composition of Betz et al. to areas of outer finish susceptible to scratching such as near locks, door handles, etc. with the expectation of providing the desired scratch resistance, since Betz et al. teach that the coating composition is scratch resistant (See column 2, lines 61-67; column 3, lines 1-8) and is particularly suitable as a topcoat for producing a multicoat finish in the sector of the automotive OEM finishing and/or automotive refinishing (i.e. over outer finish) of car bodies and parts thereof and also truck bodies, and the like (See column 10, lines 1-5).

Applicants, however, respectfully assert that Betz neither teaches, nor suggests Applicants' claimed invention. Applicants call the Examiner's attention to page 1, lines 18-24 of their application. As the Examiner will note in referring to the PCT Publication No. of Betz, WO 98 40 171, which is referred to in the specification of their application, is the PCT filed counterpart of Betz. As indicated in the specification of their application, the flexibility of the clear lacquers taught by Betz need to be further improved. In addition, the specification of their application further indicates that the clear lacquers taught by Betz have "a relatively high content of low or non-volatile high reactive thinners which, after application of the clear lacquers, can lead to an undesirable partial dissolution of the base lacquer coats resulting in deviations in colour or effect." Nothing disclosed in Betz, however, indicates how the clear/sealing lacquer used in a process for coating over either a base lacquer/clear lacquer two-coat lacquer, or a multi-coat lacquer should be prepared so as to achieve a clear/sealing lacquer that is both scratch resistant and flexible, and yet does not cause colour and effect deviations of the coating by causing the base lacquer coats over which such a clear/sealing coat is coated to dissolve. Indeed, as set forth hereinabove, there is not a single teaching or suggestion contained in Betz that would lead a person of ordinary skill in the art to use the specific process used by Applicants in preparing the specific aliphatic urethane(meth)acrylate contained in the clear/sealing coat used in Applicants' claimed coating process. In fact, as

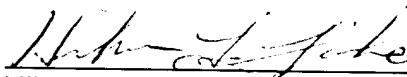
indicated in the specification of their application, the coating compositions specifically taught by Betz are in need of improved elasticity and decreased partial dissolution of the base lacquer coat so as to prevent deviations in colour and effect presently experienced by the clear coats taught by Betz. As a result, Betz does not render Applicants' claimed invention obvious because Betz fails to teach or suggest the process used in preparing the specific aliphatic urethane(meth)acrylates used in preparing the clear/sealing coatings of Applicants' claimed coating process. Accordingly, Applicant's respectfully request that the Examiner withdraw this rejection and allow claims 23-24.

Moreover, Applicants respectfully assert that claims 10-22 are not obvious in light of Betz for the same reasons as already set forth hereinabove.

### Summary

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. In order to expedite disposition of this case, the Examiner is invited to contact Applicant's representative at the telephone number below to resolve any remaining issues. Should there be a fee due which is not accounted for, please charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,



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